NASA Project Management Challenge 2009

PROJECT MANAGEMENT CHALLENGE 2009

Sixth Annual NASA Project Management Seminar

ABSTRACT AND BIOGRAPHY

NASA Instrument Capability Study

Numerous NASA projects have had difficulties in developing science instruments for application to their missions, which has affected projects across the NASA mission directorates. NASA's Office of the Chief Engineer chartered a comprehensive cross-cutting study to evaluate instrument development capability across the Agency. The National Oceanic and Atmospheric Administration (NOAA) and the Department of Defense (DoD) also participated in this Study.
This study, which is known as the NASA Instrument Capability Study (NICS), was chartered to determine if NASA instrument developments are facing challenges that impact the capability to design and build quality instruments, or if there are flaws in the acquisition strategy evidenced by schedule delays, cost overruns, and increased technical risk via design deficiencies. The NICS team implemented a comprehensive study plan to acquire and analyze data across eight cross-cutting areas with the purpose of evaluating whether instrument development issues were isolated or generic. The NICS team also sought feedback from government and industry instrument providers to acquire a thorough understanding of the issues observed and to seek options for solutions to recover degraded capability.

John Leon
Branch Head, Instrument Systems Branch
NASA Goddard Space Flight Center

Mr. Leon has worked in the aerospace field for 22 years. He has been at NASA's Goddard Space Flight Center (GSFC) since 1998. Mr. Leon is currently serving as the Branch Head for the Instrument Systems Branch (ISB) at the GSFC. In this capacity, he is responsible for overseeing fifty civil servant instrument managers and systems engineers involved in the development of science instrument concepts, technologies, proposals, and flight instrument development programs.
Prior to this position, Mr. Leon served in other capacities at the GSFC including: flight instrument manager, proposal manager, access to space agent, and project formulation manager.

Prior to working at the GSFC, Mr. Leon worked at the Kennedy Space Center (KSC) from 1987 to 1998. While at the KSC, he served in numerous positions including: NASA Test Director, Landing and Recovery Director, emergency evacuation and training advisory group chairman, Shuttle orbiter process engineer, and NASA Test Conductor. Mr. Leon also served as structures and orbiter handling engineer for the Lockheed Space Operations Company from 1987 to 1989.

Mr. Leon has received the NASA outstanding leadership medal and group achievement award, GSFC honor awards for leadership and management, exceptional achievement, and quality and process improvement, and the KSC Space Shuttle launch director's

award and mission leadership award, as well as the Lockheed Commendation for Engineering Excellence.

Donya M. Douglas
Associate Branch Head in the Instrument Systems Branch
NASA Goddard Space Flight Center

Ms. Donya M. Douglas is currently one of the Associate Branch Heads in the Instrument Systems Branch at NASA Goddard Space Flight Center located in Greenbelt, Maryland. She graduated from University of Maryland at College Park in 1994 with a BS in Mechanical Engineering and has worked at Goddard for more than 17 years. Her areas of expertise include research and development of two-phase thermal control devices for spacecraft such as Capillary Pumped Loops (CPLs) and Loop Heat Pipes (LHPs), state-of-the-art research into variable emittance coatings, spacecraft and instrument thermal design and control, and instrument systems engineering. Ms. Douglas has received numerous awards for her outreach and engineering efforts.